

2/2 010

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0135344

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BASIC SPECTRAL CHARACTERISTICS
OF HIGH FREQUENCY ELECTRODELESS LAMPS WITH PB OR PB SALT VAPORS ARE
GIVEN AND DISCUSSED.

UNCLASSIFIED

USSR

ANDRUS, T. I., BAZILENKO, O. K.

"Study of Single-Channel Queueing System with Blocking of Free Source"

Materialy Seminara po Kibernet. AN MoldSSR, Mold Territor. Gruppa Nats. Kom. SSSR po Avtomat. Upr. [Materials of Seminar on Cybernetics, Acad. Sci. MoldSSR, Moldavian Territorial Group of National Committee of USSR on Automatic Control], 1972, No 46, pp 24-41 (Translated from Referativnyy Zhurnal, Kibernetika, No 3, Moscow, 1973, Abstract No 3 V71 by I. Kovalenko).

Translation: The functioning is studied of a queueing system with a finite number of sources of requests. There is an "accessibility interval," outside of which servicing of requests received from given sources is impossible. The author studies varieties of such a system, in the first of which each source sends only one request, while in the second each source sends several requests and in the third the reserve of requests is unlimited. The expediency is studied of dividing the interval of accessibility into subintervals with corresponding division of the set of sources of requests. The analytic prerequisites accepted by the author allow the system to be studied by the method of restoration processes.

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BAZILENKO, O.K.

data link systems

All-Communications
Data Link Systems

TECHNICAL FACILITIES OF THE SIRENA-1 DATA LINK SYSTEM

Article by Candidates of Technical Sciences V. N. Silyayev, O. K. Bazilenko, V. L. Babitskiy, Yu. F. Babitskiy, V. E. Babitskiy, and Engineers A. S. Izrael, Ye. P. Izrael, Ye. P. Izrael, Moscow, Prihoz 1 Sibirskoy Upravleniya, Krasnoyarsk, No 4, April 1973, pp 1-4

The rational organization of a data link in geographically scattered systems of the type Sirena [1] largely determines the economic effectiveness of the entire system.

A data link combines into one system the peripheral subdivisions [2] and the technological data processing center (DPC) [3]. The link is a set of channels and technical facilities that provide a high communication channel utilization coefficient, reliable transmission and processing of data and direct multichannel communications. Accordingly, the technical facilities of a link are divided into three groups: data traffic concentration facilities (DTC); data exchange reliability group and multichannel communications group.

Means of Concentrating Data Flows

The purpose of facilities of this group is to ensure economically efficient utilization of uncommutated channels K_c for a given subscriber servicing quality. The prerequisites for extensive application of various data traffic concentration methods in a data link were formulated in [1].

According to the criterion $\phi = Z/L_j$ of the ratio of distances between the sources (1-n) and the concentrator K and between the concentrator and DTC, the following methods of traffic concentration may be used (Figure 1): local concentration ($L_1 \ll L_j$; $L_1 < 100$ m); central traffic concentration ($L_1 \ll L_j$; $L_j < 100$ m); concentration of data from geographically scattered points ($L_1 \approx L_j$; $L_1, L_j \gg 100$ m). The technical facilities of DTC may be based on the utilization of the principles of commutation of either the channels or the traffic.

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[1 - USSR - F]

Carroll

JPRS 59662

31 July 1973

USSR

BAZILENKO, O. K., KROCHAK, B. Ya.

"Optimal Thresholds for Rejection of an Information Transmission Line"

Materialy Seminara po Kibernet. AN MoldSSR, Mold. Territor. Gruppa Nats. Kom. SSSR po Avtomat. upr. [Materials of a Seminar on Cybernetics, Acad. Sci. MoldSSR, Moldavian Territorial Group, National Committee of the USSR on Automatic Control], 1972, No 46, pp 3-14 (Translated from Referativnyy Zhurnal, Kibernetika, No 3, Moscow, 1973, Abstract No 3 V467 by E. Gabidulin).

Translation: Certain methods of testing information transmission lines in order to detect defects are studied.

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USSR

UDC 616.931-02:616.9-036.2

BIRKOVSKIY, Yu. Ye., MILOVANOV, L. P., SHIMANSKIY, O. V., KVITKO, Yo. G.,
VOYTER, A. S., BAZILEVA, A. M., and MODOVSKAYA, F. Ya., Kiev

"Epidemiological Significance of Mild Atypical Forms of Diphtheria Under Present Conditions"

Kiev, Vrachebnoye Delo, No 8, Aug 70, pp 145-149

Abstract: The incidence of diphtheria in the USSR has declined sharply since the end of World War II, from 150 per 100,000 population in 1944 to only sporadic cases in 1966. However, this decrease in the diphtheria rate has not been matched by a corresponding decline in the number of carriers of diphtheria bacilli. Studies conducted in 1964 and 1965 in Kiev revealed that 2.5% of all healthy children examined, and about 15% of children in boarding schools and similar groups, were carriers. The disparity between the incidence of diphtheria and the number of carriers is thought to be due largely to a failure to diagnose mild, atypical forms of the disease. These forms are common in immunized children, in whom the characteristic symptoms include subfebrile temperature, mildly hyperemic throat, and slight enlargement of the lymph nodes. The number of cases of children with sore throat who also carry diphtheria bacilli is increasing from year to year. The carrier state and sore throat may be regarded as interrelated.

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USSR

UDC 681.32:31

BAZILEVICH, R. P.

"Device for the Expansion of Matrix Determinants"

USSR Author's Certificate No 294144, Cl. G 06 f 15/32, filed 25 Nov 68,
published 24 May 71 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya
Tekhnika, No 5, May 72, Abstract No 5B99P)

Translation: The device is a special-purpose mathematical machine for the automatic expansion of determinants of matrices recorded in general (symbolic) form. It can be used for the analysis of different physical systems which are described by linear equations, particularly for linear electric circuit analysis.

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USSR

UDC 681.325.65

BAZILEVICH, R. P., ZAMORA, Ye. F., KOTLYAROV, A. V., SAVENKO, N. M.,
SEREDYUK, A. I., and SHISHKA, A. V.

"A Logic Device"

USSR Author's Certificate No 276525, Filed 29 Mar 68, Published 19 Nov 70
(from Referativnyy Zhurnal -- Avtomatika, Telemekhanika, i Vychislitel'naya
Tekhnika, No 8, 1971, Abstract No 8B132 P)

Translation: A logic device is proposed. In order to determine the parity of permutations, the device will contain: a diode matrix which transmits signals in one direction along all columns and along all rows; programing switches for forming sequences of time-separated interrogation pulses (the inputs of the switches are connected to the outputs of a multiphase multi-vibrator, and the outputs of the switches are connected to the cathodes of the diodes of the matrix); programing switches whose inputs are connected to the cathodes of the diodes of the matrix and whose outputs are connected to the inputs of the corresponding parity flip-flops; dual programing switches for forming sequences of time-separated interrogation pulses and for feeding the appropriate pulses to the appropriate inputs of the parity flip-flops concerned with the number of inversions between individual

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USSR

BAZILEVICH, R. P., et al., USSR Author's Certificate No 276525, Filed 29 Mar 68, Published 19 Nov 70 (from Referativnyy Zhurnal -- Avtomatika, Telemekhanika, i Vychislitel'naya Tekhnika, No 8, 1971, Abstract No 8B132 P)

elements of the permutations. The device will also contain an indications flip-flop which is connected with the positive-sign indicator and the negative-sign indicator. The first input of this flip-flop is connected to the outputs of the parity flip-flops, and the second input is connected to the output of the multiphase multivibrator.

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USSR

UDC 532.517.4

BAZILEVICH, V. A.

"The Effect of Resistance Lowering Polymers on Jet Flows of a Liquid"

Gidravlika i gidrotekhn. Resp. mezhved. nauch.-tekhn. sb. (Hydraulics and Hydroengineering. Republic Interdepartmental Scientific-Technical Collection), 1972, No. 15, pp 3-11 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B1064)

Translation: The geometry of a submerged jet in freshly prepared aqueous solutions of polyacrylamide and polyoxyethylene of concentration $4.5 \cdot 10^{-5}$ and 10^{-4} flowing from a nozzle where the inner diameter of the section varies from 0.5 to 4 mm is investigated. The velocity of the fluid at the output of the nozzle varied from 0.1 to 7 m/sec. The degree of the effect of polymer additives on the behavior of the jet was determined visually on the basis of the length of the laminar segment and the expansion of the turbulent portion. Aluminum powder was added to the fluid coming from the nozzle to visualize the jet. It is noted that polymer additives lower the intensity of the expansion of the jet especially in the initial region of the turbulent segment; the effectiveness of polymer action on completely turbulent jets is a function of the diameter of the nozzle opening. 15 ref. V. S. Belokon'.

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1/2 014 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--BEHAVIOR OF IRON ORE MATERIALS DURING REDUCTION -U-
AUTHOR--(05)--POKHVISNEV, A.N., SPEKTOR, A.N., YUSFIN, YU.S., BAZILEVICH,
T.N., PYRIKOV, A.N.
COUNTRY OF INFO--USSR
SOURCE--STAL' 1970, 30(2), 97-105
DATE PUBLISHED-----70
SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MECH., IND., CIVIL AND
MARINE ENGR
TOPIC TAGS--IRON ORE, CHEMICAL REACTION MACHANISM, THERMAL EFFECT,
CHEMICAL REDUCTION, SINTERING FURNACE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1994/1951 STEP NO--UR/0133/70/030/002/0097/0105
CIRC ACCESSION NO--AP0115759
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0115759

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. FLUXED AND NONFLUXED PLAIN AND DOUBLE LAYER PELLETS AND SAMPLES OF SINTER, BOTH EXPTL. AND COM., FROM MANY SOVIET, JAPANESE, AND AUSTRIAN SOURCES, WERE HEATED ISOTHERMALLY AT 600-1200DEGREES IN H, CO, AND CO-CO SUB2-N MIXT., OR WERE HEATED BY GRADUALLY INCREASING THE TEMP. FROM 300 TO 1200DEGREES IN 4 HR AND PERIODICALLY CHANGING THE GAS COMPN. TREATED SAMPLES WERE TESTED FOR VOL. AND STRENGTH CHANGES, MICRO AND MACROSTRUCTURE VARIATIONS, AND FOR POROSITY. THE RESULTS ARE DESCRIBED AND PRESENTED IN DIAGRAMS. REDN. WITH H AND CO LOWERS THE STRENGTH OF ALL MATERIALS TESTED. THE CRUSHING STRENGTH AND ABRASION RESISTANCE OF PELLETS ARE, HOWEVER, LOWER THAN THOSE OF SINTER, WHILE THE VOL. OF PELLETS SHOWS A GREATER INCREASE. A MAX. VOL. INCREASE AND STRENGTH DROP OCCUR WHEN HEMATITE BEGINS TO TRANSFORM INTO MAGNETITE. THE VOL. INCREASE OBSD. DEPENDS LARGELY ON THE STRUCTURE AND STRESS OF SAMPLES, RATHER THAN ON C PPTN. A 1.5 FOLD LOWER SWELLING ON H REDN. IS CAUSED BY THE DIFFERENT REDN. MECHANISM INVOLVED. FACILITY: MOSK. INST. STALI SPLAVOV, MOSCOW, USSR.

UNCLASSIFIED

BAZILEVICH, V. A.

JPRS 55300
29 February 1972

REDUCING THE HYDRAULIC DRAG IN PIPELINES WITH POLYMER ADDITIVES

(Article by V. A. Bazilevich and A. M. Shadrin, Institute of Hydromechanics, Academy of Sciences of the Ukrainian SSR, Kiev, Gidromekhanika, Russian, No 17, 1971, signed to press 16 February 1972, pp 105-113)

Many investigators [1-13 et al.] have shown that the addition of small amounts of high molecular weight compounds (molecular weight of the order of $M = 10^5$) to water or to petroleum products significantly reduces the turbulent friction during the flow of these liquids. At the present time, a number of such macromolecular compounds is known from synthetic (polymers) as well as from biological sources.

The investigations in this area are being carried out at the present time mostly within the framework of studies aimed at the prevention of the relationship governing this effect. In the majority of cases, these experiments are unsystematic in character and do not provide a clear flow concerning the effect of the various flow conditions on the lowering of the drag. In view of this situation, the studies of the lowering of the drag in pipes carried out at the Institute of Hydromechanics, Academy of Sciences of the Ukrainian SSR in 1966-1968 had the aim of defining as broadly as possible the effect of the flow rate, pipe diameter, material of construction and roughness of the walls, presence of solid particles in the stream, presence or absence of a pump, mode of the polymer introduction into the stream, etc.

The aim of our present article is a detailed and systematic exposition of the experimental results obtained in the above studies. The results presented in Figs. 1, a and b, will provide an idea of the range of flow conditions employed in the experiments. The experiments were carried out in an open system without a pump (1-10, 16-18) as well as in recirculation systems with centrifugal pumps (11-15, 19-41). The pipes used in these studies were round pipes with the diameters of 21 mm (1-18), 51 mm (20-25, 41) 105 mm (26-36), and 202 mm (39-40), as well as pipes with square cross sections 25.4x25.1 mm (19-23). In order to determine

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USSR

UDC 621.373.2

ANDRIANOV, A. M., ALEKSEYEV, Yu. A., BAZILEVSKAYA, O. A., BARYSHEV, V. L., and KRABKOV, V. A.

"High-Voltage Pulse Oscillator"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No. 33, 1971, p 184

Abstract: The oscillator contains a nonuniform forming line with distributed parameters, a firing block, and a load. The line is made of two plane circular electrodes with a common axis of symmetry. Between them is a dielectric, with azimuthally symmetrical dischargers around the line's outer periphery; the load is connected through a ring insulator to the central region of the line. The dielectric constant is a function of the electric field intensity. High power and short rise time of the pulses are the features of the device. A sketch of the device is given.

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1/2 025 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--CLINIC AND TREATMENT OF LIGAMENTAL INJURIES IN TRAUMA TO THE SPINE
AND SPINAL CORD -U-
AUTHOR--BAZILEVSKAYA, Z.V. **B**
COUNTRY OF INFO--USSR
SOURCE--ORTOPEDIYA, TRAVMATOLOGIYA I PROTEZIROVANIYE, 1970, NR 6, PP 15-19
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--SPINAL CORD, TRAUMATOLOGY, CLINICAL MEDICINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3003/0903 STEP NO--UR/9115/70/000/006/0015/0019
CIRC ACCESSION NO--AP0129968
UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0129968

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ON BASIS OF CLINICAL (730 OBSERVATIONS) AND EXPERIMENTAL STUDIES (74 EXPERIMENTS) IT WAS ESTABLISHED THAT LIGAMENTS ARE DAMAGED IN ALL INJURIES TO THE SPINE AND SPINAL CORD. THE DAMAGED LIGAMENTS DO NOT REGENERATE, BUT ARE REPLACED BY CICARTICIAL TISSUE. THE SYMPTOMS IN LIGAMENTAL INJURIES ARE UNSPECIFIC. THE TREATMENT IS DIRECTED TOWARD SOUND FIXATION OF THE INJURED SPINE SEGMENTS AND IMMEDIATE REDUCTION OF THE DISPLACED VERTEBRAE. OPEN REDUCTION REQUIRES CAUTIOUS MANIPULATION (BONEPLASTIC APPROACH), PRESERVATION OF THE BONE ANATOMICAL PROJECTIONS AND THOROUGH RESTORATION OF ALL THE DAMAGED TISSUES. IN INJURY TO THE LIGAMENTS, ESPECIALLY ISOLATED, THE DEVELOPING EXCESSIVE VERTEBRAL MOBILITY MAY, EVEN IN THE PROCESS OF TREATMENT, INFLICT MICROINJURIES TO THE SPINAL CORD AND PREVENT FORMATION OF MORE PERFECT SCARS. THE AUTHOR CAUTIONS AGAINST EXCESSIVE EXCESSIVE RADICALISM IN OPEN REDUCTION AND SUBSTITUTION OF BONY ELEMENTS OF THE VERTEBRA BY TRANSPLANTS. FACILITY: IRKUTSKOGO INSTITUTA ORTOPEDII I TRAVMATOLOGII.

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--BEST LOCALIZED DESCRIPTION AND ENERGY OF CORRELATION IN CYCLIC
POLYENES -U-
AUTHOR--BAZILEVSKIY, M.V.
COUNTRY OF INFO--USSR
SOURCE--ZH. STRUKL. KHIM. 1970, 11(2), 339-49
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--MOLECULAR ORBITAL, LEAST SQUARE METHOD, GROUND STATE, ELECTRON
ENERGY, POLYENE, CYCLIC GROUP
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605018/B09 STEP NO--UR/0192/70/011/002/0339/0349
CIRC ACCESSION NO--AP0140795
UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--04DEC76

CIRC ACCESSION NO--AP0140795

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A NEW METHOD OF TRANSFORMATION OF MO INTO LOCALIZED ORBITALS IS PROPOSED. FOR A GIVEN SET OF LOCALIZED COEFFS., THE UNITARY MO TRANSFORMATION GIVING THE MIN. DIFFERENCE BETWEEN THE GIVEN AND THE RESULTING COEFF. SETS IN THE LEAST SQUARES SENSE IS SEARCHED OUT. THE NEW FORMULAS WERE APPLIED FOR A LOCALIZED DESCRIPTION OF BENZENE AND CYCLIC POLYENES, WHERE SYMMETRY LEADS TO EQUIV. ORBITALS WITH IDENTICAL ENERGIES. THE LATTER PERMITS A SECOND ORDER PERTURBATION THEORY CALCN. OF THE GROUND STATE CORRELATION ENERGY OF PI ELECTRONS WITH ALL LONG RANGE INTERACTIONS TAKEN INTO ACCOUNT.

FACILITY: FIZ.-KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 669.71.48

POVKH, I. L., CHEKIN, D.V., SMIRNOV, V. A., BAZILEVSKIY, V. M., OKUNEV, V. M.,
POPOV, V. A.

"Study of the Possibility of the Impoverishment of Fused Salt Slags From Aluminum Production by Electromagnetic Weighting"

Tr. Donetsk. NII Chern. Metallurgii [Works of Donetsk Scientific Research Institute for Ferrous Metallurgy], 1970, No. 20(4), pp. 21-25. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 G177 by the authors).

Translation: Studies performed on the electromagnetic weighting of salt slags produced in melting Al showed that it can be used to extract up to 98% of the Al and 83% of the oxides. 3 figs; 2 tables.

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Aluminum and Its Alloys

USSR

UDC 669.715.004.82

BAZILEVSKIY, V. M., KRYLOV, A. P., and LEYBOV, YU. M.

"Developing New Secondary Aluminum Alloys and Changing the Composition of Secondary Aluminum Alloys Already in Use"

Moscow, Tsvetnyye Metally, No 7, Jul 71, pp 51-53

Abstract: Principal trends in improving the properties of alloys prepared from scrap metal and waste products are discussed. They include the refinement of the chemical composition of existing secondary alloys, application of heat treatment, and additional alloying with specific admixtures and modification. On the basis of works conducted by the Giprotsvetmetobrabotka State Scientific Research and Planning Institute of Alloys and Nonferrous Metal Processing, new secondary aluminum foundry cast alloys with higher mechanical properties than those of existing alloys have been developed. Their content of admixtures is not lower than the admissible content of secondary alloys according to the All-Union State Standard. Compositions and properties of some improved secondary aluminum alloys or their new compositions are presented. Two tables, thirteen biblio. refs.

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USSR

UDC 669.715.004.82

BAZILEVSKIY, V. M.

"Ways of Improving the Quality and Properties of Secondary Aluminum Alloys"

Moscow, Tsvetnyye Metally, No 5, May 70, pp 65-68

Abstract: In this article, which deals with ways of improving the quality and properties of secondary aluminum alloys, the author criticizes the current GOST standards pertaining to these alloys, which do not take into account the many improvements in production processes, equipment, and laboratory and control means. He stresses the need for revision of the standards and for providing the production plants with suitable control instrumentation for determining alloy composition and properties.

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USSR

UDC:669.714

POVKH, I. L., CHEKIN, B. V., SMIRNOV, V. A., BAZILEVSKIY, V. M., OKUNEV, V. M. and POPOV, V. A., Donetsk State University, Donetsk Scientific Research Institute for Ferrous Metals, State Scientific Research and Planning Institute of Alloys and Nonferrous Metal Processing

"Extraction of Aluminum and Oxides From Salt Slags Using Electromagnetic Forces"

Ordzhonikidze, Izvestiya Vysshikh Uchevnykh Zavedeniy, Tsvetnaya Metallurgiya, No 1, 1971, pp 65-68

Abstract: The possibility in principle of the process of extraction of aluminum buttons and oxides from melted salt slags using electromagnetic forces is demonstrated. The basis of the phenomenon is the fact that when a weakly conducting liquid in which conducting droplets and non-conducting particles are suspended is placed in crossed electrical and magnetic fields, the specific gravity of the conducting phases increases.

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USSR

POVKH, I. L., et al., Izvestiya Vysshikh Uchevnykh Zavedeniy,
Tsvetnaya Metallurgiya, No 1, 1971, pp 65-68

This causes the droplets to precipitate to the bottom and the non-conducting particles to rise to the top.

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1/2 041 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--CORROSION OF ALUMINUM SHAVINGS DURING STORAGE -U-
AUTHOR-(02)-SEMOV, N.P., BAZILEVSKIY, V.M. *B*
COUNTRY OF INFO--USSR
SOURCE--TR., GOS. NAUCH.-ISSLED. PROEKT. INST. SPLAVOV OBRAB. TSVET. METAL
1970, NO. 31, 43-50
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--X RAY ANALYSIS, ALUMINUM, CORROSION RATE, PROTECTIVE COATING,
COPPER COMPOUND, ALUMINUM OXIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3006/0591 STEP NO--UR/0000/70/000/031/0043/0050
CIRC ACCESSION NO--AT0134356
UNCLASSIFIED

2/2 041

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--ATOL34356

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SHAVINGS OF AL ALLOYS CONTG. CU 1.32 AND 6.55PERCENT WERE STORED FOR 1 YR OUT OF DOORS AS WELL AS INSIDE CLOSED COMPARTMENTS. SAMPLINGS WERE MADE EVERY MONTH; THE AMT. OF UNOXIDIZED METAL WAS DETD. BY THE METHOD OF MELTING. THE RESULTS SHOWED THAT THE WT. LOSSES OF METAL OWING TO OXIDN. WERE ABOUT 2.7 AND 1.5PERCENT A MONTH FOR THE OUT OF DOOR AND COMPARTMENT STORAGE, RESP., AND INCREASED DIRECTLY PROPORTIONATE TO THE STORAGE TIME. NO RETARDATION OF THE CORROSION WITH TIME WAS OBSD. X RAY ANAL. OF THE PROTECTIVE OXIDE LAYER ON THE METAL SURFACE SHOWED THAT IT WAS DUE TO ITS INSUFFICIENT HOMOGENEITY AND FRIABILITY. THE SURFACE LAYER CONSISTED MAINLY OF AL(OH) SUB3. THE ALLOYS CONTG. AN INCREASED AMT. OF CU SHOWED LESS CORROSION RESISTANCE OWING TO THE INTERCRYST. CORROSION CAUSED BY THE INTERMETALLIC CuAL SUB2 COMPD. PPTD. AT THE GRAIN BOUNDARIES.

UNCLASSIFIED

Electricity & Magnetism

USSR

UDC 537.529

BAZIROV, M. A., KURBANOV, M. A., SHKILEV, A. V., and NURALIYEV, N. E.

"Investigation of an Electrical Discharge in the Air Between Electrodes Covered With Dielectrics"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, Vol XLI, No 6, Jun 71, pp 1287-1291

Abstract: There is very little experimental data on the basic nature and parameters of the occurrence of an electrical discharge in the air between electrodes covered with dielectrics. The present article describes a method of investigating a discharge of this type. With the aid of an electric-optical converter and an oscillograph, optical and electrical images of the discharge were recorded simultaneously at various moments of sinusoidal voltage applied to the electrodes. It was established that the electrical discharge is discrete and is generated in the form of a series of spark channels. The geometric dimensions and number of the spark channels in a particular series depend on the type of dielectric used and on the width of the air space between the electrodes. It was also established that the voltage of the extinguishing of the discharge was not constant; it depends on the number of spark channels in each series of the discharge. Finally, the magnitude and polarity of the voltage had almost no effect on the optical image of the development of the discharge.

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1/2 011 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--NONADIABATIC CALCULATION OF POSITIVE PARITY STATES IN ERBIUM 161
AND ERBIUM 163 -U-
AUTHOR--(03)-BAZNAT, M.I., CHERNEI, M.I., PYATOV, N.I.
COUNTRY OF INFO--USSR *B*
SOURCE--PHYS. LETT. B 1970, 31(4), 192-4
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY
TOPIC TAGS--PARITY PRINCIPLE, NUCLEAR MODEL, ERBIUM ISOTOPE, NUCLEAR SPIN,
EXCITED NUCLEUS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1982/0674 STEP NO--NE/0000/70/031/004/0192/0194
CIRC ACCESSION NO--AP0052133
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0052133

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A CALCN. OF POS. PARITY STATES IN PRIME161 ER AND PRIME163 ER, WITHIN THE NONADIABATIC ROTATIONAL MODEL, HAS BEEN PERFORMED, BY TAKING THE CORIOLIS COUPLING OF 7 SAXON WOODS' POTENTIAL ORBITALS INTO ACCOUNT. TWO PARAMETERS, THE ROTATIONAL PARAMETER H PRIME2 OVER 2 PHI AND THE EFFECTIVE PAIRING FORCE STRENGTH G SUBEFF WERE USED IN THE CALCN. A SATISFACTORY FIT OF THE CALCN. TO THE EXPTL. ENERGY LEVELS WITH SPIN VALUES UP TO PRIME TWENTY NINE HALVES CAN BE ACHIEVED ONLY IF A STRONGLY REDUCED PAIRING FORCE AND ROTATIONAL PARAMETER VALUES CLOSE TO THOSE FOR NEIGHBORING EVEN NUCLEI ARE USED.

FACILITY: JOINT INST. NUCL. RES., DUBNA, USSR.

UNCLASSIFIED

1/2 019 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PHOTOCHROMISM OF ORGANIC COMPOUNDS. III. EFFECT OF TEMPERATURE AND
SOLVENT NATURE ON REVERSIBLE AND IRREVERSIBLE PHOTOREACTIONS OF 2,12
AUTHOR--(03)-BAZOV, V.P., PARSHUTKIN, A.A., KRONGAUZ, V.A.
COUNTRY OF INFO--USSR
SOURCE--KHIM. VYS. ENERG. 1970, 4(2), 174-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHOTOCHEMISTRY, PYRIDINE, AROMATIC NITRO COMPOUND, CHEMICAL
REACTION KINETICS, STYRENE, METHACRYLATE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/1625 STEP NO--UR/0456/70/004/002/0174/0175
CIRC ACCESSION NO--AP0112619
UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112619

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS WAS STUDIED OF REVERSIBLE AND IRRVERSIBLE PHOTOREACTIONS OF THE TITLE COMPD. (I) IN ETOH SOLNS. AT 77DEGREESK, IN THIN LAYERS OF POLYSTYRENE AND PLOYMETHACRYLATE AT 195 AND 77DEGREESK, AND IN C SUB7 H SUB16 SOLNS. AT 195DEGREESK. IN THE GLASS LIKE ETOH MATRIX AT 77DEGREESK, PRODUCTS II AND III ARE FORMED DIRECTLY FROM I INREVERSIBLE AND IRREVERSIBLE REACTIONS, RESP., WITH QUANTUM YIELDS OF 0.08 AND 0.02 MOLE-EINSTEIN. THE QUANTUM YIELDS ARE MARKEDLY LOWER THAN THOSE AT 195DEGREESK; THIS IS DUE TO THE EXISTENCE OF ETOH IN SOLID STATE AT 77DEGREESK. THE REPLACEMENT OF POLAR ETOH BY NONPOLAR C SUB7 H SUB16 AT 195DEGREESK LOWERS THE QUANTUM YIELD OF THE REVERSIBLE FORMATION OF II AND INCREASES THE IRREVERSIBLE REACTION YIELD. FACILITY: FIZ. KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 038 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PHOTOCHROMISM OF ORGANIC COMPOUNDS. II. KINETICS OF REVERSIBLE AND
IRREVERSIBLE PHOTOREACTIONS OF 2,2 PRIME, 4 PRIME, DINITROBENZYL PYRIDINE
AUTHOR--(03)-PARSHUTKIN, A.A., BAZOV, V.P., KRONGAUZ, V.A.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VYS. ENERG. 1970, 4(2), 131-8

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--RADIATION EFFECT, CHEMICAL REACTION KINETICS, AROMATIC NITRO
COMPOUND, PYRIDINE, PHOTOCHEMISTRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1626

STEP NO--UR/0456/70/004/002/0131/0138

CIRC ACCESSION NO--AP0112620

UNCLASSIFIED

2/2 038

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112620

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIRECTION AND QUANTUM YIELDS WERE STUDIED ON PHOTOCHEM. REACTIONS OCCURRING IN SOLNS. OF THE TITEL COMPD. (I) IN ETOH AT 195DEGREESK. THE SPECTRUM OF THE SOLNS. IS NOT CHANGED DURING THE REACTIONS, WITH THE EXCEPTION OF THE APPEARANCE OF A NEW ABSORPTION BAND AT 567.5 NM, WHICH BELONGS TO A COLORED PRODUCT (II) FORMED DIRECTLY AND REVERSIBLY FROM I. IN IRRADIATING AN ETOH SOLN. OF I BY MONOCHROMATIC RADIATION (366 NM) WITH THE INTENSITY OF 6.9×10^5 PRIME NEGATIVE5 EINSTEIN-L.-SEC, THE DEPENDENCE OF THE ABSORBANCE AT 567 NM ON TIME HAS A MAX. AT SIMILAR TO 24 MIN. THE ANAL. OF THE DEPENDENCE SHOWED THAT 2 SIDE REACTION PRODUCTS ARE ALSO FORMED IN WHICH BY PRODUCTS III AND IV, HAVING THE SAME ABSORPTION SPECTRUM AS I, ARE FORMED DIRECTLY AND IRREVERSIBLY FROM I AND II, RESP. EQUATIONS WERE DERIVED FOR DETG. MOLAR ABSORPTIVITIES AND QUANTUM YIELDS.

FACILITY: FIZ.-KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

Acc. Nr.: **AP0029814**

Ref. Code: UR 0475

PRIMARY SOURCE: Vrachebnoye Delo, 1970, Nr 1, pp 67-69

IMMUNOLOGIC REACTIONS IN PATIENTS WITH ALLERGIC
NODULAR VASCULITIS OF THE SKIN

V. P. Fedotov and A. P. Bazyka (Zaporozhye)

70 patients with nodular vasculitis of the skin showed either foci of chronic infection, mainly staphylococcal or pyococcal diseases in the anamnesis. The majority of patients showed positive cutaneous-allergic reactions, complement fixation reactions, agglutination and passive hemagglutination with pyococcal vaccines, these being most marked in case of staphylococcus.

Data received suggest certain immunological changes in respect to pyococci and in particular staphylococci and their role in the pathogenesis of allergic nodular skin vasculitis.

mk

2

REEL/FRAME
19681500

1/2 020 UNCLASSIFIED PROCESSING DATE—30OCT70
TITLE—REACTION OF CARENE IN THE PRESENCE OF DIATOMITE -U-
AUTHOR—(03)—BARDYSHEV, I.I., BAZYLCHIK, V.V., SHLYASHINSKIY, R.G.
COUNTRY OF INFO—USSR
SOURCE—ZH. OBSHCH. KHIM. 1970, 40(3), 672-6
DATE PUBLISHED—70
SUBJECT AREAS—CHEMISTRY
TOPIC TAGS—MONOMER, POLYMER, TERPENE, AROMATIC HYDROCARBON, ISOMER
CONTROL MARKING—NO RESTRICTIONS
DOCUMENT CLASS—UNCLASSIFIED
PROXY REEL/FRAE—2000/0928 STEP NO—UR/0079/70/040/003/0672/0676
CIRC ACCESSION NO—AP0124589

2/2 020

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124589

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PASSING 3,CARENE OVER DIATOMITE AT 250DEGREES WITH 4.5 SEC CONTACT TIME GAVE 86.7PERCENT MONOMERIC PRODUCTS AND 12.8PERCENT POLYMERS. THE FOLLOWING WERE IDENTIFIED CHROMATOGRAPHICALLY AND SPECTROSCOPICALLY: M,MENTH,1,ENE, P,MENTH,3,ENE, P,MENTH,1,ENE, DELTA PRIME4,CARENE, DELTA PRIME3,CARENE, 1,1,4,TRIMETHYLCYCLO,HEPTADIENE, CIS,ISOLIMONENE, L,P,MENTHA,2,4,DIENE, M,1,3,MENTHADIENE AND TERPINENE, GAMMA,TERPINENE, SYLVESTRENE, P,CYMENE, AND L,P,MENTHA,3,8,DIENE. . THUS THE 3,CARENE UNDERGOES ISOMERIZATION INTO THE 4,ISOMER AND RUPTURE OF THE 3 MEMBERED RING IN ALL POSSIBLE DIRECTIONS. FACILITY: INST. FIZ. ORG. KHIM., MINSK, USSR.

Photoelectric Effect

USSR

UDC 621.383.292+621.383.52

BAZYLENKO, V. A., VORONIN, E. S., PROKOPENKO, V. Ye., STARKOV, G. S., Physics Department, Moscow State University

"On Selecting Photoreceivers for Reception of Weak Signals Against a Noisy Background"

Moscow, Pribory i Tekhnika Eksperimenta, No 4, Jul/Aug 71, pp 109-192

Abstract: The paper deals with the registration capacity of photoreceivers, which is defined as the minimum ratio of the signal power to the background power when the background is predetermined and the signal-to-noise ratio is equal to unity. Experimental data are given on the registration capacity of photomultipliers and photodiodes on wavelengths of 0.63 and 1.15 μ . Three types of photomultipliers with oxygen-silver-cesium cathodes (FEU-22, -62, and -83) and four types of germanium photodiodes (PD-1, -3, -3A and -6C) were studied. It was assumed that the photoreceivers have only shot noise. The emission source was a 170 W DC incandescent lamp. Curves are given for registration capacity as a function of operating conditions and quantum yield. It is found that the registration capacity of photodiodes on a wavelength of 0.63 μ at an emission power of 10 μ W is about 20 times as high as the registration capacity of a photomultiplier, the factor increasing to 100 for a $1/2$

USSR

BAZYLENKO, V. A., et al., Pribory i Tekhnika Eksperimenta, No 4, Jul/Aug 71, pp 190-192

wavelength of 1.15 μ . In conclusion, the authors thank Yu. A. Il'inskiy and V. S. Solomatin for constructive criticism and constant interest in the work.

2/2

- 105 -

1/2 021 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--DRY VIRUS VACCINE AGAINST AUJESKY'S DISEASE FROM STRAIN GNKI -U-
AUTHOR--(021)-BAZYLEV, P.M., PROKHOROVA, E.M.
COUNTRY OF INFO--USSR *B*
SOURCE--VETERINARIYA, 1970, NR 2, PP 44-45
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--VIRUS DISEASE, ANIMAL DISEASE, VACCINATION, IMMUNIZATION

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3003/1215 STEP NO--UR/0346/70/000/002/0044/0045
CIRC ACCESSION NO--AP0130225
UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0130225

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STATE SCIENTIFIC CONTROL INSTITUTE (GNKI) VIRUS VACCINE AGAINST AUJESZKY'S DISEASE IS HIGHLY IMMUNOGENIC AND CONSISTS OF AN AVIRULENT STRAIN OF AUJESZKY'S DISEASE VIRUS WITH A FILLER (DRYING MEDIUM) IN A 1:1 RATIO. THE VACCINE DID NOT PRODUCE REACTIONS IN HEALTHY PIGLETS THREE TO FIVE DAYS OLD AND OLDER. CONTROL INOCULATION OF SHEEP PROTECTED VACCINATED ANIMALS AGAINST A VIRULENT STRAIN OF AUJESZKY'S DISEASE VIRUS. PIGLETS 18 DAYS OLD AND OLDER, LAMBS UP TO THREE MONTHS OLD AND ADULT SHEEP ACQUIRED IMMUNITY ON THE 7TH-12TH DAYS AFTER A SINGLE INOCULATION WITH DRY VIRUS VACCINE. A DOUBLE VACCINATION WITH AN INTERVAL OF 20-25 DAYS IS NECESSARY TO PRODUCE A DEEPER AND MORE LONG LASTING IMMUNITY, ESPECIALLY IN YOUNG ANIMALS. DOUBLE VACCINATED ANIMALS RETAINED IMMUNITY FOR 12 MONTHS (THE OBSERVATION PERIOD). THE DRY VACCINE CAN BE STORED FOR 12 MONTHS AT 2-8 C. FACILITY: STATE SCIENTIFIC CONTROL INSTITUTE OF VETERINARY PREPARATIONS.

UNCLASSIFIED

BAZYREV B.

UR 9016

AN/0040359

TITLE-- /CAPTION/

NEWSPAPER-- SOVETSKAYA BELORUSSIYA, APRIL 5, 1970, P 1, COLS 7-8

ABSTRACT-- A PHOTOGRAPH SHOWS GEOPHYSICIST BORIS BAZYREV OPERATING THE MACHINE THAT INTERPRETS THE SEISMIC DATA ON CONTINENTAL SHOALS. BAZYREV IS ON THE STAFF OF THE GELENDZHIK BRANCH OF THE ALL-UNION SCIENTIFIC-RESEARCH INSTITUTE OF MARINE GEOLOGY AND GEOPHYSICS. THE INSTITUTE USES ITS 18 RESEARCH VESSELS TO LOCATE MINERAL DEPOSITS IN THE WATERS OF THE ARAL, CASPIAN, BLACK AND BALTIC SEAS, AND PACIFIC AND ARCTIC OCEANS. THE INSTITUTE ALSO DOES SOME WORK FOR BULGARIA, CUBA, POLAND, AND EAST GERMANY.

19741794

USSR

UDC 669.28:539.4:539.125.18:669-977

ALEKSANDROV, S. I., BAZYUKIN, V. G., VOTINOV, S. N., ZAKHAROV, A. R., KAZAKOV, V. A., and RAZOV, I. A.

"Effect of Initial State of Molybdenum on Radiation Hardening at High Temperatures"

V sb. Radiatsion. fiz. tverd. tela i reaktornoye materialoved. (Radiation Solid-State Physics and Reactor Materials Science -- Collection of Works), Moscow, Publishing House of the State Committee of the Council of Ministers USSR for the Use of Atomic Energy, 1970, pp 139-140 (from RZh-Metallurgiya, No 3, Mar 71, Abstract No 3I733 by V. Kudryashov)

Translation: The authors studied the effect of irradiation with an integral dose of up to $1.5 \cdot 10^{20}$ neutrons/cm² ($E \geq 1$ Mev) at high temperatures (750 and 1200°) on Mo produced by different methods (single crystal, powder metallurgy, and cast) in different states (recrystallized and unrecrystallized). Tensile testing was performed by remote control on an MM-15CD machine at a deformation rate of 10^{-3} sec⁻¹ at 20-800° in a vacuum of 10^{-4} mm Hg. After irradiation at 750° an increase is observed in strength properties, lattice spacing and microhardness and a decrease in ductility, with the radiation

1/2

USSR

ALEKSANDROV, S. I., et al., Radiatsion. fiz. tverd. tela i reaktornoye materialoved., Moscow, 1970, pp 139-140

hardening of cast Mo higher than that of p/m Mo. There is found to be a decline in the uniform elongation of specimens of single-crystal Mo from 8.5 to 4.5% without an appreciable decline in the overall specific elongation. The brittle point of cast Mo rises after irradiation. Bibliography with 17 titles.

2/2

Thin Films

USSR

UDC 539.4.019.3

ANDRONOV, V. M., and BAZYURA, R. I., Kharkov

"Measurement of Internal Friction in Very Thin Films"

Moscow, Fizika i Khimiya Obrabotka Materialov, No 4, Jul-Aug 73, pp 146-149

Abstract: Experimental results are presented from measuring the internal friction in thin copper films in relation to their thickness where measurement were made on films less than 1000 Å thick using the lateral vibrations from a permanent magnetic field in the kilohertz region. These measurements showed that film strength diminishes with increased thickness while initial strain increases with increased thickness. Mathematical expressions are presented which were used to calculate inductive emf, and a diagram of the apparatus used to measure internal friction is shown. Three figures, three bibliographic references.

1/1

1/2 009 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--EFFECT OF HERBICIDES ON THE YIELD OF SUNFLOWER AND ON THE QUALITY
OF THE OIL -U-
AUTHOR--(03)-BEDEKH, N.D., POPOV, P.S., VASILYEVA, D.S.
COUNTRY OF INFO--USSR **B**
SOURCE--KHIM. SEL. KHOZ. 1970, 8(2), 129-30
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HERBICIDE, VEGETABLE OIL/(U)ALIPUR HERBICIDE, (U)AVADEX
HERBICIDE, (U)IFK HERBICIDE, (U)PROMETRYNE HERBICIDE

CONTRCL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/1368 STEP NO--UR/0394/70/008/002/0129/0130

CIRC ACCESSION NO--AP0125016
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125016

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INVESTIGATIONS WERE MADE IN 1964-6 IN REGIONS WITH VARIOUS SOIL AND CLIMATIC CONDITIONS. THE FOLLOWING HERBICIDES WERE APPLIED: ALIPUR (4 KG), AVADEX (2 KG), IFK (IPC) (12 KG), PROMETRYNE (2 KG-HA). PROMETRYNE DID NOT INHIBIT MICROFLORA, COULD BE DECOMPD. DURING 3-4 MONTHS, AND IT DID NOT ACCUMULATE IN SUNFLOWER SEEDS. HERBICIDES WERE APPLIED BEFORE PRESOWING CULTIVATION. ANNUAL WEEDS WERE MAINLY ENCOUNTERED ON SOWN AREAS. AVADEX AND IPC DESTROYED CHIEFLY MONOCOT WEEDS, WHILE PROMETRYNE AND ALIPUR AFFECTED MAINLY DIGGITS AND HERBACEOUS PLANTS. INCREASES IN SEEDS YIELD OF 1.5-2 AND EVEN 3 QUINTALS-HA WERE OBTAINED. NO CHANGE IN THE OIL YIELD OR ITS QUALITY WAS FOUND. FACILITY: VSES. NAUCH.-ISSLED. INST. MASLICH. KUL'TUR, KRASNODAR, USSR.

UNCLASSIFIED

Adsorption

USSR

UDC 546.633:543.544.6

SHATSKIY, V. M., KRIVENKO, S. V., KOMISSAROVA, L. N., BEBIKH, G. F.,
PRUTKOVA, N. M., KESLER, YA. A., and TVOROGOV, V. A., Chain of Inorganic
Chemistry

"Synthesis of Novel Phosphorus Containing Sorbents and the Study of the Sorption
of Scandium on Them"

Moscow, Vestnik Moskovskogo Universiteta, Vol 13, No 6, Nov-Dec 72, pp 653-658

Abstract: Optimal conditions for scandium sorption and separation from iron
have been determined on a pilot-plant scale. A specific sorbent was used in the
process. It was the product of the copolymerization of styrene with divinyl-
benzene phosphorylated with PNCl_2 and subsequently hydrolyzed with alcoholic
potassium hydroxide solution. The optimal conditions for the separation process
on this sorbent are as follows: the sorption is carried out from a 0.1 N H_2SO_4
solution; a 7% ammonium fluoride solution is used for the desorption; under
these conditions in one "sorption-desorption" cycle the iron is isolated prac-
tically completely. Repetition of the desorption process with a fresh portion
of the desorbent removed 92% of scandium. This sorbent may be used for the con-
centration of scandium out of the solutions with high iron content. In addition
to iron this method also separates all mono- and divalent elements, rare earth
elements and other impurities from scandium.

1/1

USSR

UDC 547.26'118

NIFANT'YEV, E. Ye., BEBIKH, G. F., and SAKODYNSKAYA, T. P., Moscow State University imeni M. V. Lomonosov

"Use of Anilides of Alkylene- and Dialkylphosphorus Acids in the Todd-Atherton-Type Reaction"

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 2011-2015

Abstract: Alkylenephosphorous acid anilides are made from alkylenechlorophosphites and aromatic amines. It is shown that anilidophosphites can be used to obtain iminoamidophosphates by oxidative phosphorylation and the Todd-Atherton-reaction. 1,3-Butylenephosphorous acid anilide readily reacts with carbon tetrachloride and diethylamine to form 1,3-butylene diethylaminophenyliminophosphate. The reaction is described in detail and the properties of alkylene(dialkyl)phosphorous acid anilides and aryliminoakylene(dialkyl)phosphoric acid amides are given in tables.

1/1

- 56 -

USSR

UDC: 547.222.26'118.07

ZHURAVLEVA, M. P., BEBIKH, G. F., INFANT'YEV, E. Ye., Moscow State University imeni M. V. Lomonosov

"A Method of Producing Dithioalkylenechlorophosphites"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratsy, Tovarnyye Znaki, No 26, 1970, Soviet Patent No 278689, Class 12, filed 23 Jun 69, pp 23-24

Abstract: This Author's Certificate introduces: 1. A method of producing dithioalkylenechlorophosphites. As a distinguishing feature of the patent, the raw material base is expanded and the procedure is simplified by interacting alkylenechlorophosphites with phosphorus pentasulfide in the presence of heat in an organic solvent with subsequent isolation of the goal product by conventional methods. 2. A modification of this method distinguished by the fact that the process is carried out at a temperature of 140°C.

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USSR

UDC 612.143+612.275.1

AGADZHANYAN, N. A., ISABAYEVA, V. A., BEBINOV, YE. M., and YELFIMOV, A. I.

"Role of the Arterial Chemoreceptors in Adaptation to High Altitudes"

Frunze, Sovetskoye Zdravookhraneniye Kirgizii, No 6, 1971, pp 8-13

Abstract: Experiments were performed on intact and denervated rabbits and rats imported from Moscow (sea level) and marmots at an altitude of 3,200 m to study the part played by the sinocarotid zone in adaptation to a mountain climate. The criterion of acclimatization was the "survival time" at an altitude of 12,000 m (elevation in a pressure chamber at a velocity of 25 m/sec). Tolerance for high altitude did not increase in the intact and denervated rats until after 30 days of acclimatization. The "survival time" at the "altitude" of 12,000 m was significantly longer in the intact rats than in the animals with excised sinocarotid glomera. The results were essentially the same in the experiments with the rabbits. But in the experiments with the marmots, the "survival time" of the intact animals at 12,000 m was 780 sec compared with 1,280 sec for the glomectomized animals. High altitude tolerance was therefore greater in marmots than in the animals living at sea level (rabbits, rats) and a glomectomy caused opposite changes. Whereas high
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USSR

AGADZHANYAN, N. A., et al., Sovetskoye Zdravookhraneniye Kirgizii, No 6, 1971, pp 8-13

altitude tolerance of the rabbits and rats decreased after denervation of the sinocarotid chemoreceptors, it increased in the marmots. The dynamics of changes in the RBC, prothrombin time, fibrinogen concentration, and other hematological indexes showed the same pattern. For example, the number of RBC and hemoglobin content increased considerably in the glomectomized rabbits (more than in the intact animals) but decreased in the marmots. Thus, the sinocarotid chemoreceptors play a significant role in the process of adaptation to high altitudes.

2/2

1/2 - 036 UNCLASSIFIED PROCESSING DATE--18SEP70
TITLE--INVESTIGATING CONTROL SENSOR SIGNALS AS FUNCTIONS OF THE CHANGE IN
DIMENSIONS AND POSITION OF CRACK DEFECTS -U-
AUTHOR--BEDA, P.I. *B*
COUNTRY OF INFO--USSR
SOURCE--SVERDLOVSK, DEFECTOSKOPIYA, NO. 1, 1970, PP 62-68
DATE PUBLISHED-----70

SUBJECT AREAS--METHODS AND EQUIPMENT, MATERIALS, ELECTRONICS AND
ELECTRICAL ENGR.
TOPIC TAGS--METAL CRACKING, POROSITY, QUALITY CONTROL, EDDY CURRENT FLAW
DETECTION, NONDESTRUCTIVE TEST, PHYSICS LABORATORY INSTRUMENT, CURRENT
DENSITY, MODEL, VOLTMETER/(U)VFL VOLT METER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1985/0110

STEP NO--UR/0381/70/000/001/0062/0068

CIRC ACCESSION NO--AP0100653

UNCLASSIFIED

2/2 036

UNCLASSIFIED

PROCESSING DATE--18SEP70

CIRC ACCESSION NO--AP0100653

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. KNOWLEDGE OF THE GENERAL EXPRESSIONS FOR THE CHANGE IN SHAPE OF THE CONTROL SENSOR SIGNAL CAUSED BY SUCH DISCONTINUITIES IN METALS AS CRACKS, LAMINATIONS, AND POROSITY, DISCOVERED IN THE COURSE OF QUALITY CONTROL, IS NECESSARY FOR THE DEVELOPMENT OF EDDY CURRENT CONTROL METHODS AND DEFECTOSCOPE CONSTRUCTION. THIS ARTICLE PROVIDES SOME OF THE RESULTS OF AN INVESTIGATION INTO THE EFFECT OF VARIOUS TYPES OF CRACKS IN THE PRODUCT ON THE SIGNAL EMITTED BY A CYLINDRICAL CONTROL SENSOR. IN THE COMPUTATIONS FOR THESE EXPERIMENTS, THE SENSOR WAS REPLACED BY AN EQUIVALENT COIL HAVING A DIAMETER OF 6-24 MM. THE CROSS SECTIONS OF THE SENSOR WINDINGS WERE APPROXIMATELY SQUARE. THE MEASUREMENTS WERE MADE IN A DIFFERENTIAL CIRCUIT USING THE PHASE SENSITIVE VOLTMEETER VF 1. THE MODELS, MADE OF WOOD'S METAL, WERE GIVEN ARTIFICIAL CRACKS OF VARIOUS LENGTHS, DEPTHS, AND POSITIONS. THREE QUANTITIES WERE CONSIDERED: THE VECTOR OF THE NORMALIZED EMF INCREASE CAUSED BY THE PARTICULAR CRACK, ITS MODULUS, AND THE NORMAL COMPONENT, I. E., THE PROJECTION OF THE EMF INCREASE VECTOR ON THE NORMAL TO THE OUTLET LINE AT THE GIVEN POINT.

UNCLASSIFIED

1/2 026 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--EFFECTIVENESS OF TREATMENT OF PATIENTS WITH ECZEMA, PSORIASIS AND
NEURODERMATITIS AT THE VANGOW SPA RESORT -U-
AUTHOR--(03)-DYAKONOV, M.F.; BEDA, S.A., LESNIKOV, G.A. *B*
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 3, PP 39-42
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--DERMATITIS, VITAMIN, PROPHYLAXIS, NERVOUS SYSTEM DISEASE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1986/0691 STEP NO--UR/0206/70/000/003/0039/0042
CIRC ACCESSION NO--AP0102675
UNCLASSIFIED

2/2 026

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0102675

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THERE WERE 1701 PATIENTS UNDER OBSERVATION, OF THEM 857 WITH CHRONIC ECZEMA, 678 WITH PSORIASIS, 165 WITH NEURODERMATITIS. THE PATIENTS RECEIVED COMPOSITE TREATMENT: GENERAL BATHS OF MINERAL WATER AT A TEMPERATURE OF PLUS 35DEGREES TO 38DEGREESC, OF 10 TO 15 MINUTES' DURATION, A COURSE CONSISTING OF 12 TO 20 BATHS; SHOWERS, HELIO AEROTHERAPY. SOME PATIENTS WERE GIVEN DESENSITIZING THERAPY AND VITAMINS. THE FOLLOWING IMMEDIATE RESULTS WERE OBTAINED: FOR PATIENTS WITH CHRONIC ECZEMA CLINICAL CURE IN 33.7PERCENT, CONSIDERABLE IMPROVEMENT IN 15.5PERCENT, IMPROVEMENT IN 47.3PERCENT, NO CHANGE IN 2.5PERCENT, EXACERBATION IN 1PERCENT; FOR PATIENTS WITH PSORIASIS CLINICAL CURE IN 28.9PERCENT, SIGNIFICANT IMPROVEMENT IN 28.6PERCENT; IMPROVEMENT IN 41.3PERCENT, NO CHANGES IN 1.2PERCENT. IN NEURODERMATITIS CLINICAL CURE WAS OBSERVED IN 27PERCENT, CONSIDERABLE IMPROVEMENT IN 20PERCENT, IMPROVEMENT IN 49.4PERCENT, NO CHANGES IN 3.6 PERCENT OF THE PATIENTS.

UNCLASSIFIED

USSR

UDC: 624.131.54:539.375

CHIZHIKOV, P. G. and BEDA, V. I.

"Design of Foundations from Deformations"

Podol'sk, Osnovaniya fundamenty i mekhanika gruntov, No 5, 1972,
pp 11-13

Abstract: This article is in the nature of a survey of accomplishments in the field of foundation design. It discusses an expression involving relative settling and loads which improves the method for computing foundations, and examines the statistical processing of the results of tests on 65 foundations based on that expression. Two formulas approximating the expression are stated; these permit designing foundations from deformations in the variation interval of the limiting sag, and are useful for computing foundations of all types constructed by various methods in any kind of soil. A sequence of steps in the computation of foundations from deformation is given, and a table is reproduced for presenting data obtained in the tests made on deep foundations in water-absorbent ground. A bibliography of 16 titles, made up primarily of Russian sources, is appended.

1/1

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Inventions & Discoveries

USST

KEKIN, A. A., SOPIKOV, G. D., BEDAREV, P. I.

"A Generator of Light Aero-Ions to Produce Unipolarly Charged Mine Aerosol"

Alma-Ata, Vestnik Akademii Nauk Kazakh SSR, No 6, 1973, pp 50-53

Abstract: A method is proposed for precipitating mine dust by unipolar charging of the dust particles. The central idea of the method is to create a generator of light aero-ions to put the air in an ionized state. Since the outer region of a corona discharge is a gas which contains a high density excess unipolar space charge, the generator was developed on the basis of theoretical and experimental data obtained in tests of various corona discharge devices by using a compressed air jet to carry the space charge out of the discharge column. Basically, the generator is a corona discharge needle electrode enclosed in a tube through which compressed air flows, carrying the space charge to an exit cone from which the jet of ionized air is thrown at high velocity. Test results are given.

1/1

BEDILOV, M.R.

Rad / N. 160 / 5. 14. 13 93

Results are outlined. It is shown that a decrease of at least one unit of the suggested photon level of the multi-quantum excitation process in photo-conductivity of activated alkali halide crystals is associated with the thermal ionization of excited states of impurity centers. Graphical and photographic data of experimental results are included.

Bedilov, M. R., K. Khaydarov, and Kh. Babadzhanova.
Nature of radiation defects formed on the surfaces of
solids by ruby laser radiation. IAN UzSSR, Ser. fiz-
mat, nauk, no. 2, 1972, 66-68.

Results are described of an experimental investigation of damage processes on the surface of solids from ruby laser radiation in a free-running regime. Radiation energy was 1-3 joules and maximum power density was $\sim 10^7$ watt/cm², the beam was focused using a $f = 50$ mm lens. Targets were W, Mo, Ni, Zn, and Si, purified by laser radiation and placed in a 10^{-6} torr vacuum. Radiation processes were studied using microscopic and oscillographic methods, which provided data on integral and time characteristics of target surface defects during the laser pulse period. Integral defects formed by 800 msec exposure were studied by microscope. In the 0.6-2 joules energy range, growth of surface radiation defects was strongly dependent on the nature of target and laser energy. At 0.6-1.0 joules, the target structure was predominantly band-like; but melting zones and craters did not appear. Individual 150-200 μ microcraters were formed however on the surface due to the intensive laser pulse peaks. With an increase of energy to 2 joules, the structure band disappeared and macrocrater and melting zones were observed on the target. The macrocraters were almost identical, nearly circular and their size was a function of target type, varying between 800 and 1050 μ . For W, Mo, Ni, and Zn targets, macrocraters attained 800, 1050, 950, and 1200 μ respectively, at a laser energy of 2 joules. Ion current variations were recorded by an

USSR

UDC: 8.74

AL'PEROVICH, E. Ye., BATISHCHEV, D. I., BASALIN, P. D., BEDNAYA, R. I.,
KOROTCHENKO, A. G., KONYUGINA, L. A., KOLDORKINA, L. R., SERGEYEVA, N. M.,
SUKHAREVA, V. A.

"SAPPOR -- a System for Automating the Process of Making Optimum Decisions"

Moscow, Kibernetich. sistemy avtomatiz. proyektir.--sbornik (Cybernetic
Automated Design Systems--collection of works), 1973, pp 29-35 (from RZh-
-Kibernetika, No 7, Jul 73, abstract No 7V633 by A. Doroshenko)

Translation: SAPPOR is a dialog system oriented for making optimum de-
cisions in the process of designing technical devices. The system is
realized on the BESM-3M computer with two memory arrays, the second
being designed for operation of a screen panel. The software of the
system is based on the modular principle and has the following modules:
1) "Model" -- for constructing the mathematical model of the object
being designed. This block is replaceable and varies depending on the
class of the object of optimization. In developing the SAPPOR, RLC cir-
cuits were taken as models. 2) "Formulation of the Problem" -- a com-
piler which prepares classes of problems formulated by the designer for

1/2

USSR

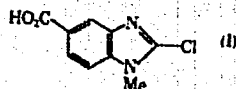
AL'PEROVICH, E. Ye. et al., Kibernetich. sistemy avtomatiz. proyektir., 1973, pp 29-35

solution (calculating the characteristics of the object, optimizing the mathematical expectation in satisfying probability limitations, etc.). 3) "Method of Solution" -- a set of programs for finding the global minimum of an arbitrary curve, minimizing multiparameter functions and numerically solving problems in nonlinear programming. 4) "Check" -- enables following and controlling the process of finding the optimum with respect to information which may appear at the output (alphanumeric printer, screen panel) as ordered by the operator. 5) "Output of Results" -- gives the results of optimization in the form of graphs and tables on a screen panel or on paper with the use of an alphanumeric printer or a "Konsul" typewriter. The last four modules are universal and do not depend on the type of optimization object. An advantage of the SAPPOR is the possibility for operative search for the optimum decision and the combination of the designer's experience and intuition with rigorous mathematical methods. In this connection, the design process can be carried out without knowledge of computer programming and the corresponding methods of search optimization.

2/2

Acc. Nr. **AP0045160** Abstracting Service:
CHEMICAL ABST.Ref. Code:
UR0409

90369r Substitution of a hydrazine group by chlorine in a benzimidazole series. Mokrushina, G. A.; Kunakova, R. V.; Bednyagina, N. P. (Ural. Politekh. Inst. im. Kirova, Sverdlovsk, USSR). *Khim. Geterotsikl. Soedin.* 1970, (1), 131-2 (Russ). Refluxing 1-methyl-2-hydrazino-5-benzimidazolecarboxylic acid (HCl salt m. 309-11°) with SOCl_2 gave 1-methyl-2-chloro-5-carboxybenzimidazole (I), m. 197°. This is a peculiar



nucleophilic displacement in the benzimidazole series. 1-Methyl-2-hydrazinobenzimidazole and 1-benzyl-5-nitro-2-hydrazinobenzimidazole reacted similarly with SOCl_2 . G. M. Kosolapoff

REEL/FRA
19780060

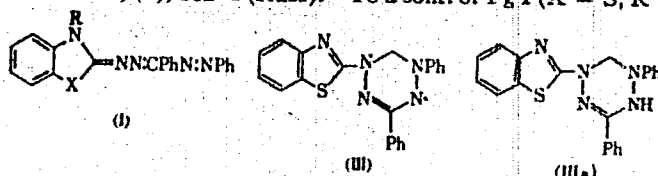
Acc. Nr: **AP0100361** Abstracting Service:
CHEMICAL ABST.

Ref. Code:

5/70

UR 0409

111346y Benzazoles and naphthazoles. XXV. Structure and properties of methyl derivatives of 1-benzazolyl-3,5-diphenylformazans. Lipunova, G. N.; Bednyagina, N. P. (Ural. Politekh. Inst. im. Kirova, Sverdlovsk, USSR). *Khim. Geterotsikl. Soedin.* 1969, (5), 882-4 (Russ). To a soln. of 1 g I (X = S, R =



H) (II), in 80 ml EtOH was added 5 ml 30% NaOH and 3 ml MeI and the whole refluxed 2 hr to yield red I (X = S, R = Me), m. 66-8°. Similarly prepd. at 20° was I (X = O, R = Me), m. 90-3°, and red-gray I (X = NCH₂Ph, R = Me), m. 115-18°. To a soln. of 1.8 g II in C₆H₆ was added a C₆H₆ soln. of CH₂N₂ (prepd. from 5 g nitrosourea) to give, after 4 days, III, m. 108-10°. III crystd. from a Me₂NCHO-EtOH-H₂O mixt. gave non-paramagnetic IIIa, m. 73-5°. EPR, uv, and ir spectra are discussed.

Włodzimierz Custowski

REEL/FRAME

19841781

1/2 013 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--STRUCTURE OF AROMATIC AND HETEROCYCLIC FORMAZANS. I. STRUCTURE AND
ABSORPTION SPECTRA -U-
AUTHOR--(05)-BEDNYAGINA, N.P., LIPUNOVA, G.N., NOVIKOVA, A.P., ZEYF, A.P.,
SHCHEGOLEVA, L.N. **B**
COUNTRY OF INFO--USSR
SOURCE--ZH. ORG. KHIM. 1970, 6(3) 619-23
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--UV SPECTRUM, MOLECULAR STRUCTURE, CYCLIC GROUP, THIAZOLE,
BENZIMIDAZOLE, PYRIDINE, ABSORPTION SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/1582 STEP NO--UR/0366/70/006/003/0619/0623
CIRC ACCESSION NO--AP0112576
UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112576

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. UV SPECTRA OF RNHN:CR PRIME1 N:NR PRIME2 WERE RECORDED AND DISCUSSED (R, R PRIME1, R PRIME2 GIVEN): PH, H, PH; PH, ME, PH; P-O SUB2 NC SUB6 H SUB4, ME, P-O SUB2 NC SUB6 H SUB4; PH, PH, PH; PH, PH, P-ME SUB2 NC SUB6 H SUB4; PH, PH, P-O SUB2 NC SUB6 H SUB4; PH, P-O SUB2 NC SUB6 H SUB4, PH; PH, P-O SUB2 NC SUB6 H SUB4, P-O SUB2 NC SUB6 H SUB4; P-O SUB2 NC SUB6 H SUB4, PH, P-O SUB2 NC SUB6 H SUB4; 1,BENZYL,2,BENZIMIDAZOLINYL, ME, PH; 2, BENZOTHIAZOLYL, ME, PH; 2,BENZOXAZOLYL, ME, PH; 1,BENZYL,2, BENZIMIDAZOLYL, PH, PH; 2,BENZOTHIAZOLYL, PH, PH; 2,BENZOXAZOLYL, PH, PH; 4,(2,PYRIDYL),1,2,4,TRIAZOLYL, PH, PH; AND 1, PHENYLTETRAZOLINYL, PH, PH.

UNCLASSIFIED

1/2 014 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--COMPLEXES OF METALS WITH SOME NITROGEN CONTAINING LIGANDS. XVIII.
COMPLEXES OF ZINC WITH 1,5-DIBENZIMIDAZOLYLFORMAZANS -U-
AUTHOR-(03)-OGLOBLINA, R.I., BEDNYAGINA, N.P., GARNOVSKIY, A.D.
COUNTRY OF INFO--USSR
SOURCE--ZH. OBSHCH. KHIM. 1970, 40(2), 367-72
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--METAL COMPLEX COMPOUND, ZINC COMPLEX, BENZIMIDAZOLE,
HETEROCYCLIC NITROGEN COMPOUND, POLYNUCLEAR HYDROCARBON, MOLECULAR
STRUCTURE, DIPOLE MOMENT, ABSORPTION SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1995/1394 STEP NO--UR/0079/70/040/002/0367/0372
CIRC ACCESSION NO--AP0116842
UNCLASSIFIED

2/2 014

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0116842

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. MIXING APPROPRIATE
1,5,BIS(1,ALKYL,2,BENZIMIDAZOLYL), 3,ALKYLFORMAZANS WITH ZN CHLORIDE OR
ACETATE GAVE COMPLEXES I (R AND R PRIME1 SHOWN, RESP.): PHCH SUB2, ME,
M. 280-5DEGREES; SAME WITH ADDED ME SUB2 CO OF CRYSTN., M. 280-5DEGREES;
ME, ME, M. 295-8DEGREES; ET, ME, M. 290-3DEGREES; PHCH SUB2, PR, M.
293-8DEGREES; AND II PHCH SUB2, ME, M. 178-80DEGREES; SAME WITH ADDED
ZN(OH) SUB2, M. 210-15DEGREES; REACTION OF THE FORMAZANS WITH ZN(OAC)
SUB2 IN ME SUB2 CO GAVE II, PHCH SUB2, ME, M. 180-2DEGREES; MONOHYDRATE
OF II, ET, ME, M. 188-90DEGREES. ABSORPTION SPECTRA ARE GIVEN. THE
DIPOLE MOMENTS AND THE SPECTROSCOPIC DATA INDICATED THAT COMPLEXES OF
TYPE I WHICH HAVE LOW SOLY. IN NONPOLAR SOLVENTS, HAVE THE STRUCTURE
SHOWN; THE COMPLEXES OF TYPE II WITH DIPOLE MOMENTS OF 1.5-2 D ARE THUS
SHOWN TO BE TRUE CHELATES WITH TETRAHEDRAL STRUCTURE TYPICAL OF ZN PRIME
POSITIVE POSITIVE COMPLEXES. THUS, AZOLYLFORMAZANS MAY FORM WITH METALS
EITHER CHELATES OR MOL. COMPLEXES WITH DATIVE BONDS MAINLY AT THE
HETERO-N ATOMS, OR CYANINES WITH ZNCL SUB2. FACILITY: URAL.
POLITEKH. INST., SVERDLOVSK, USSR.

UNCLASSIFIED

BEDNYY, M. S.

medicine

SELECTED DEMOGRAPHIC INVESTIGATIONS
 201-149
 [book review by Professor A.M. Herkov, and M.S. Bednyy, candidate of medical
 sciences (Moscow); Moscow, Sovetskoye Zdravookhraneniye, Russian, No 9, 1971,
 pp 90-92]

So: JPRS 54354
 29 OCT 71

UDC 312 (081) (045.3)

Until the mid 1930s there were two institutes of demography in our country (in Kiev and Leningrad) in which prominent Soviet scientists worked: S.A. Novosel'skiy and V.V. Payevskiy (Leningrad), M.V. Pukha and Yu.A. Korchak-Chepurkovskiy (Kiev). To comply with the requests of its readers, including demographers, sociologists, economists, statisticians, social hygienists, and others, Statistika Publishing House has published, in the last few years, several collections of selected works by V.V. Payevskiy and Yu.A. Korchak-Chepurkovskiy, the outstanding representatives of Soviet demography. The works of Yu.A. Korchak-Chepurkovskiy (1896-1967), who lived in the Ukraine and wrote mainly in Ukrainian, had been available heretofore only to a limited circle of readers who knew the Ukrainian language. While working in the department of demography of the Central Statistical Administration of Ukrainian SSR in the 1920s, Yu.A. Korchak-Chepurkovskiy not only developed urgent problems in demographic science, but was also one of the first organizers of Soviet demographic statistics in the Ukraine. A combination of scientific and organizational activities enabled him to conduct investigations based on reliable demographic material and they were notable for being thoroughly thought out, with meticulous development of actual data and profound theoretical generalizations. He was the first to compile in the Ukraine mortality and life expectancy tables for 1925-1926 based on the 1926 census.

The collection being reviewed includes the best works of Yu.A. Korchak-Chepurkovskiy which have retained their scientific importance to this day. Some are being published for the first time.

The collection has an appendix, with a biography of Yu.A. Korchak-Chepurkovskiy (by V.P. Pliskunov and V.S. Steashenko) which supplements the sparse

"Izbrannyye Demograficheskiye Issledovaniya" (Selected Demographic Investigations) compiled and edited by V.S. Steashenko, Statistika Publishing House, Moscow, 1971, 388 pp.

1/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--THE 1970 CENSUS, THE MOST IMPOSTANT SOURCE OF INFORMATION FOR
ATTACKING SOCIAL AND HYGENIC PROBLEMS IN PUBLIC HEALTH -U-
AUTHOR-(02)-BEDNYY, M.S., IVAJKINA, V.N.
CGUNTRY OF INFO--USSR **B**
SOURCE--MOSCOW, ZDRAVOCOKHRANENIYE ROSSIYSKOY FEDERATSII, NO 1, 1970, PP
8-15
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--POPULATION LEVEL, PUBLIC HEALTH, DEMOGRAPHY

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1990/0010 STEP NO--UR/0653/70/000/001/0008/0015
CIRC ACCESSION NO--AP0108404
UNCLASSIFIED

2/2 019 UNCLASSIFIED PROCESSING DATE--13NOV70
CIRC ACCESSION NO--AP0108404
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SLOW, STEADY DECLINE IN THE BIRTH RATE, ESPECIALLY IN THE RSFSR, UKRAINE, BELORUSSIA, LATVIA, ESTONIA, AND ELSEWHERE, IS A CAUSE OF CONCERN. THE 1970 CENSUS WILL PROVIDE THE DETAILED INFORMATION NEEDED TO FRAME A SUITABLE DEMOGRAPHIC POLICY TO MEET THE CHALLENGE. THE GENERAL MORTALITY RATE AS WELL AS THE AVERAGE LIFE EXPECTANCY HAVE BEEN ON A PLATEAU FOR THE LAST FEW YEARS. THE SOVIET POPULATION IS CLEARLY AGING AND THE PROCESS IS EXPECTED TO CONTINUE FOR SEVERAL DECADES. THE 1970 CENSUS WILL THROW LIGHT ON THE DEGREE OF AGING OF THE POPULATION IN THE INDIVIDUAL REPUBLICS, OBLASTS, CITIES AND RURAL AREAS, AND AMONG THE VARIOUS OCCUPATIONAL AND SOCIAL GROUPS, AND THUS HELP PLANNERS TO REORGANIZE MEDICAL AND SOCIAL SERVICES TO MEET ACTUAL NEEDS. ANALYSIS OF THE CENSUS FINDINGS AND EXECUTION OF POLICIES BASED ON THEM WILL STRENGTHEN THE HEALTH OF THE SOVIET PEOPLE AND INCREASE THEIR LIFESPAN. FACILITY: MINISTRY OF HEALTH RSFSR.

UNCLASSIFIED

USSR

UDC 614.1:312.1/.9

B
BEDNYI, M. S., Candidate of Medical Sciences and IVAKINA, V. N. Head of the Department of Medical Statistics, Ministry of Health RSFSR

"The 1970 Census, the Most Important Source of Information for Attacking Social and Hygienic Problems in Public Health"

Moscow, Zdravookhraneniye Rossiyskoy Federatsii, No 1, 1970, pp 8-15

Abstract: The slow, steady decline in the birth rate, especially in the RSFSR, Ukraine, Belorussia, Latvia, Estonia, and elsewhere, is a cause of concern. The 1970 census will provide the detailed information needed to frame a suitable demographic policy to meet the challenge. The general mortality rate as well as the average life expectancy have been on a plateau for the last few years. The Soviet population is clearly aging and the process is expected to continue for several decades. The 1970 census will throw light on the degree of aging of the population in the individual republics, oblasts, cities and rural areas, and among the various occupational and social groups, and thus help planners to reorganize medical and social services to meet actual needs. Analysis of the census findings and execution of policies based on them will strengthen the health of the Soviet people and increase their lifespan.

1/1

Miscellaneous

4

USSR

UDC 669.782.018.9(088.8)

GUSAROV, V. N., MIKULINSKIY, A. S., RYSS, N. A., GETMANCHUK, V. M.,
PIGASOV, S. Ye., BELYAYEV, G. S., BEDOV, I. S., and FOMOVGAYEV, V. N.

"Method of Melting Calcium-Silicon",

USSR Author's Certificate No. 26515, Filed 22/04/67, Published 17/06/70,
(Translated from Referativnyy Zhurnal-Metallurgiya, No. 1, 1971, Abstract
No.1 G164 P).

Translation: A method is suggested for producing Ca-Si in an electric
arc furnace by reducing CaO with Si-containing material in the presence
of CaF_2 with creation of a reducing atmosphere in the furnace by adding
a C-containing material to the fused charge during the period of Ca
reduction. The charge is fused in the presence of the C-containing
material in order to increase the content of Ca in the melt, while the
Si-containing reducer is introduced after melting.

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012

UNCLASSIFIED

PROCESSING DATE--20NOV

TITLE--RESTORATION OF THE ROOF OF THE ELECTRIC FURNACE USED FOR MELTING
SILICON CONTAINING FERRCALLOY -U-

AUTHOR--(04)-RYSS, M.A., GETMANCHUK, V.M., BEDOV, I.S., POMOGAYEV, V.N.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 263,638

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970, 47(8)

DATE PUBLISHED--10FEB70

B

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, MATERIALS

TOPIC TAGS--CHEMICAL PATENT, ELECTRIC FURNACE, SILICON ALLOY, IRON ALLOY,
REFRACTORY MATERIAL, MAGNESIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--3004/1820

STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0132085

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AA0132085

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ELEC. FURNACE CROWN IS REDUCED BY APPLYING MG CONTG. MATERIALS TO THE MOLDING SURFACE OF THE CROWN. THE CROWN IS THEN TREATED WITH THE MG VAPORS THAT RESULT FROM REDN. OF THE MG RAW MATERIAL. THE VAPORS ARE INTRODUCED IN A QUANTITY DEPENDING ON THE WEAR AND TEAR OF THE CROWN. FACILITY: CHELYABINSKIY ELEKTROMETALLURGICHESKIY KOMBINAT.

UNCLASSIFIED

USSR

UDC 621.382.8--621.396.6--181.5

NAUMOV, YU.YE., BEDREKOVSKIY, M.A., FUCHKOV, I.F.

"Analysis Of Internal Noise In Devices Containing Integrated Logical Circuits"

V sb. Mikroelektronika (Microelectronics--Collection Of Works), Moscow, Izd-vo "Sovetskoye Radio," No 4, 1971, pp 106-120

Abstract: An analysis is made of the internal noise which is caused by inductive--capacitive stray coupling between signal conductors connecting integrated logical circuits on boards. The basic factors are considered which determine the amplitude and duration of pulse noise during use of logical circuits with resistance coupling. A block diagram is shown of the equipment with which a comparison of various types of integrated circuits was made. Data are presented on a number of types of integrated circuits. The stability is investigated of a circuit of this type as compared to induced impulse noise. 10 fig. 1 tab. 6 ref.

1/1

USSR

UDC: 669.546.77

NOVAK, V. P., BOGOVINA, V. I., BEDOVIK, S. S., and MAL'TSEV, V. F., All-Union Scientific Research, Design and Technological Institute of the Pipe Industry

"Photometric Determination of Molybdenum in Nickel-Base Alloys in the Form of a Molybdenum-Unithiol Complex"

Moscow, Zavodskaya laboratoriya, Vol 37, No 10, 1971, pp 1170-1171

Abstract: Discussed is the use of unithiol as a reagent for the photometric determination of molybdenum in steels without the separation of accompanying elements. The optimal conditions for the complex formation are: 0.5 n. hydrochloric acid, maximum light absorption -- 345 nm, color intensifies with time and maximum color is achieved after 5 mins. The presence of Fe(II), Cr(III), Ni and Co in ratios (to molybdenum) of 1:80, 1:40, 1:40 and 1:10, respectively, will not interfere with the analysis. Maximum optical density of the solution is achieved after prolonged standing. The reaction rate increases with temperature. An excess of the reagent promotes intensifi-

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USSR

NOVAK, V. P., et al, Zavodskaya laboratoriya, Vol 37, No 10, 1971, pp 1170-1171

cation of color in the molybdenum-unithiol complex. An analytical procedure for molybdenum determination in EI-844B and EI-929 steel grades is described. The relative error is 3%. (3 illustrations, 1 table).

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- 59 -

USSR

UDC 666.972:621.317.18.001.5(088.8)

CHILINGARISHVILI, G. I., BEDUKADZE, G. V.

"Deep Ultrasonic Sensor"

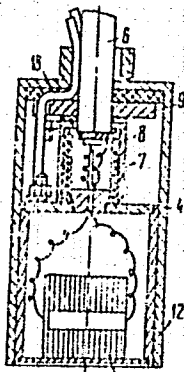
USSR Author's Certificate No 260271, filed 7 Aug 68, published 24 Apr 70
(from RZh-Elektrotehnika i Energetika No 2, Feb 71, Abstract No 2 D207)

Translation: A deep ultrasonic sensor for studying the strength characteristics of concrete inside reinforced concrete structural elements including a housing with a membrane 4 and an acoustic converter 1 (see the figure) has been patented. It is distinguished by the fact that an attachment clamping a membrane is installed in the cavity of the housing. The attachment is executed with a directional yoke 7 and with a compressed spring 8 included inside it supported on the lower end by a metal disk 9. The sensor is placed in a metal case 12; on the housing side the end of the case is open, and on the other end, there is a threaded stud for screwing on the sensor holder. The force of the spring 8 is received by two chromium-nickel wires attached on one end to the membrane 4 and on the other end to the disk 9. The two wires 18 from the disk 9 in the membrane 4 are lead out with a coaxial cable 6. The proposed design of the sensor insures stability and reliability of readings. There is 1 illustration.

1/2

USSR

CHILINGARISHVILI, G. I., et al., USSR Author's Certificate No 260271, filed
7 Aug 68, published 24 Apr 70



2/2

- 159 -

2 014 UNCLASSIFIED PROCESSING DATE--04/10/70
LE--ULTRASOUND DIAGNOSIS OF PNEUMONIA -U-
HOR-(051)-BOGIN, YU.N., KUTINA, YE.S., BOGDANOV, A.V., SHIRSHOVA, T.N.,
EDUKHINA, L.I.
COUNTRY OF INFO--USSR *Bedukhina, L.I.* *B*
SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 6, PP 123-138
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
KEYWORDS--PNEUMONIA, ULTRASOUND, DIAGNOSTIC MEDICINE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
FILM REEL/FRAHE--3005/1474 STEP NO--UR/0497/70/048/006/0123/0128
C ACCESSION NO--AP0133410
UNCLASSIFIED

2 014

UNCLASSIFIED

PROCESSING DATE--04DEC70

C ACCESSION NO--AP0133410

TRACT/EXTRACT--(U) GP-O- ABSTRACT. THE AUTHORS EVALUATED THE
DIAGNOSTIC POSSIBILITIES OF THE BIOLOCATION TECHNIQUE IN ACUTE AND
CHRONIC PNEUMONIA. THERE WERE 31 PATIENTS WITH ACUTE PNEUMONIA AND 55
WITH CHRONIC. PATIENTS WITH ACUTE PNEUMONIA ON THE ECHOGRAM SHOW
HETEROGENOUS FOCI OF INDURATION OF THE PULMONARY TISSU WHICH DISAPPEAR
UPON RECOVERY. IF PNEUMONIA IS COMPLICATED BY ACUTE PLEURISY ON THE
ECHOGRAM THE LAYER OF FLUID IS REFLECTED IN THE FORM OF NONINTENSIVE
HOMOGENOUS SHADOW. THE PNEUMONIC FOCUS IS WELL SEEN BEYOND THE FLUID
LAYER. AN EXACERBATION OF CHRONIC PNEUMONIA IS ACCOMPANIED BY THE
APPEARANCE OF HETEROGENOUS FOCI OF PULMONARY TISSUE INDURATION.
ACILITY: IV KAFEDRA TERAPII I II KAFEDRA KHIRURGII TSENTRAL'NOGO
INSTITUTA USOVERSHENSTVOVANIYA VRACHEY, MOSKVA, BIOLOKATSIONNAYA
LABORATORIYA NA BAZE TSENTRAL'NOY KLINICHESKOY BOL'NITSY MINISTERSTVA
ZDRAVOOHRANENIYA, MOSKVA.

UNCLASSIFIED

AA0043558

BEDYUKH

V.F.

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

243935 DEVICE FOR CHECKING VALVES FOR HERMETIC SEALING contains a housing 1 for creating a vacuum with an elastic packing on which is placed the test valve, corrugated hose 2, a lever mechanism 3, pressure gauge 4 and a flexible hose 5 placed between the ribs of the housing and ring 6 position of which can be adjusted in relation to the stay. Between the ribs of the housing and the ring is placed the flexible hose with a short pipe for delivery of the controlling medium i.e. liquid or gas.

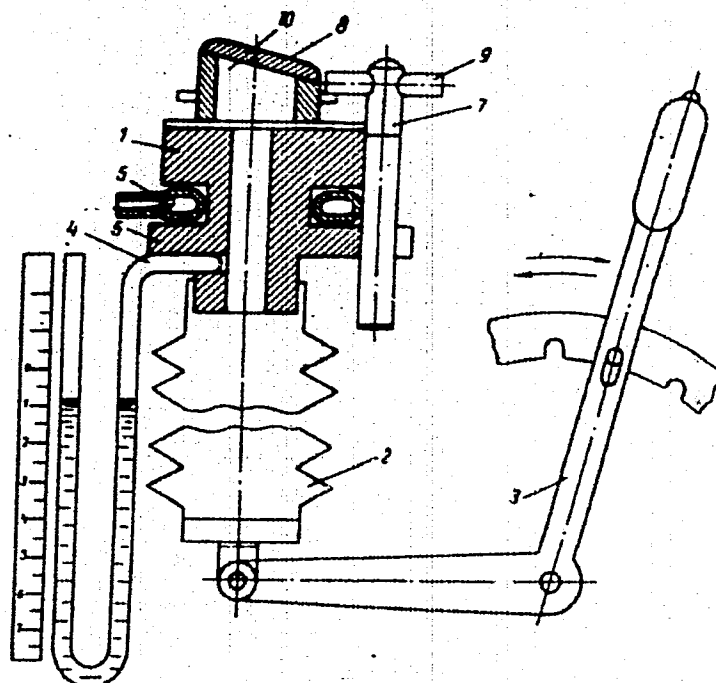
19.4.63 as 832033/25-8. M.M. KUZNETSOV & V.F. BEDYUKH
(29.11.69) Bul 17/14.5.69. Class 42k. Int.Cl.G 01 1.

1/2

18

19762009

AA0043558



7/2

19762010

28

Acc. Nr:

BEGAGOYEN

I.A.

Ref. Code:

AA0108685

Abstracting Service: 3-70

UR 0482

Soviet Inventions-Illustrated, Section I Chemical, Derwent,

[244360 SURFACE HARDENING is preceded by heating to below re-crystallisation point to improve fatigue strength. This is done by a transformer (1), roller electrode (2) and hardening roller (3) fitted on a lathe support. The electrode rollers ride ahead of the hardener at a speed governed by the heating time of the particular surface. This resistance heating principle gives an easily adjusted schedule by current control systems.

22.1.68 as 1213133/22-1. BEGAGOEN.I.A., P.A.RUDENKO, A.I. BOIKO et al. KRIVOI ROG MINING INST. (23.10.69) Bul 18/28.5.69. Class 18c. Int.Cl. C 21 d.

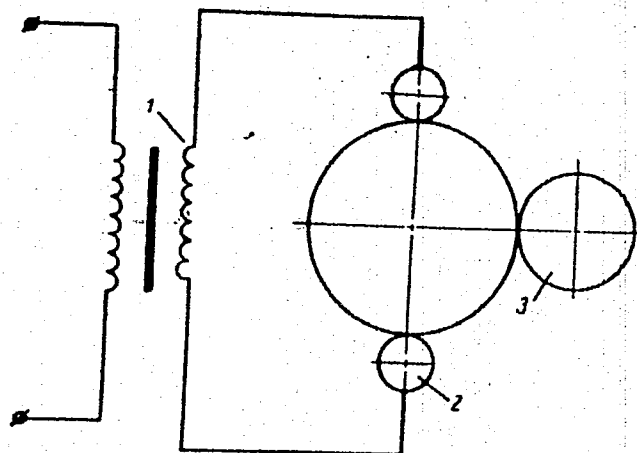
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18

REEL/FRAME

19900399

AA0108685



2/3

19900400

BS

A0108685

AUTHORS: Begagoyen, I. A.; Rudenko, P. A.; Boyko, A. I.;
Antonyuk, O. I.

Krivorozhskiy Gornorudnyy Institut

2/4
19900401

USSR

B Foundry

UDC 669.18:621.746.38

OSHCHEPKOV, E. V., SKAZIN, Yu. V., ~~REGASHOV~~, V. Z., and AZIMOVA, N. M.,
Zlatoustovskiy Metallurgical Plant

"Effect of the Quantity of Liquid Synthetic Slag on the Quality of Steel and Alloys"

Moscow, Stal', No 10, Oct 70, pp 909-911

Abstract: A method has been developed for determining the optimal height of the layer of liquid synthetic slag necessary during casting of alloys Kh15N60, Kh20N80, EI602, EI437BU and steels Kh16N6, EI635 and others into 0.5-2.7-t ingots in order to ensure good quality of surface and underfilm zone of the ingot. The depth of penetration of the pipe into the ingot body increases at extreme heights of the layer of liquid synthetic slag. The reduction in slag consumption from 17-20 to 8-10 kg/t of alloy considerably improved the quality of the microstructure and surface. The optimal height of the layer is directly proportional to the rate of casting.

1/1

BE GIDZHANOVA, A.P.

Plastics =
Tractor machine
bldg.

TECHNICAL TRANSLATION

PTIC-RT-33-1064-72

ENGLISH TITLE: The Use of Plastics in Tractor
Machine Building

FOREIGN TITLE: Primeneniye Plastmass v Traktornom
Mashinostroyeniy

AUTHOR:

A. P. Begidzhanova, L. N. Kirevskiy

SOURCE:

Mashinostroyeniye, Moscow, 1970
Literat. Priblizh.

CONTENTS (NOT REPRODUCIBLE)

Translated for PTIC by LEO KANNER ASSOCIATES (Ellicott),
Redwood, City, CA

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USSR

UDC 539.37

PRESNYAKOV, A. A., ~~BEGIMOV, T.~~, MELIKHOV, V. D., and CHERNOUSOVA, K. T.
(Editors)

Vliyaniye predvaritel'noy deformatsii na svoystva metallov i splavov (Effect of Preliminary Deformation on the Properties of Metals and Alloys), Collection of Papers, Alma-Ata, "Nauka" Press, 1971, 135 p., illustrations, graphs, tables, 1500 copies printed.

Translation of Annotation:

The papers in this collection deal with studies on the effect of preliminary plastic deformation on the properties of copper, aluminum, nickel, tin, and alloys including eutectic and eutectoid compositions. The papers offer new data on the specific characteristics of changes in plasticity, strength and structure of the above materials. These characteristics become apparent following plastic deformation-induced activation of phase and structural transformations and consist in the development of rheotropic recovery-type phenomena, superplasticity, and transformation of thermal brittleness zones. The papers reflect data on the influence of stretching rates of specimens and their state on the development of these effects. The results of the studies are of interest for the theory of metal alloys, their treatment techniques, and uses. The collection is intended for scientific personnel of institutes and engineers of metal working plants, graduate students, and metallurgical students.

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5/5

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1/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--EFFECT OF POLYACRYLAMIDE ON THE SOLUBILITY OF AMMONIUM POLY
PHOSPHATES -U-
AUTHOR--(03)-BEGLOV, V.M., BUDKOV, V.A., GRITSENKO, L.P.
COUNTRY OF INFO--USSR
SOURCE--UZB. KHIM. ZH. 1970, 14(2), 29-31
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--POLYMER, ACRYLAMIDE, SOLUBILITY, AMMONIUM PHOSPHATE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/0925 STEP NO--UR/0291/70/014/002/0029/0031
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UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137953

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AQ. POLYACRYLAMIDE (I) WAS ADDED TO POWD. AMMONIUM POLYPHOSPHATES (II) OF 0.5-2.5 MM GRAIN SIZE, OBTAINED BY NEUTRALIZATION OF PERPHOSPHORIC ACID WITH GASEOUS NH SUB3 WITHOUT OR WITH 1.5 WT. PERCENT LIGNIN ADDED, AND ITS EFFECT ON THE DISSOLN. RATE IN H SUB2 O AT ROOM TEMP. WAS STUDIED. HIGH I CONCNS. RETARDED THE DISSOLN. RATE. MIXTS. OF I WITH II HAD A HIGH COAGULATING CAPACITY.

FACILITY: INST. KHIM., TASHKENT, USSR.

UNCLASSIFIED

USSR

UDC: 632.95

B
VANIYEV, A. D., BEGLYAROV, G. A., KHOKHLOV, P. S., BLIZNYUK, N. K., and MARKOVA, N. V., All Union Scientific Research Institute of Phytopathology, Moscow, Ministry of Agriculture USSR

"Chemosterilizer"

USSR Author's Certificate No 230551, filed 14/08/67, published 10/03/69, (Translated from Referativnyy Zhurnal Khimii, No 3, Vol 2, 10 Feb 70, Abstract No 3 N659 P)

Translation: Triaryl tin dithiophosphates of the formula $R_3SnSP(S)(OR')_2$ (I); R is unsubstituted or substituted phenyl; R' is alkyl, aryl) are suggested as chemosterilizers for insects. When I (R= Ph, R' = Et) is introduced in a concentration of 0.1-0.25% to the food of house flies and corn borers, the eggs of the insects are 76-95% sterile.

S. Ye. Lyubarskaya

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USSR

UDC 616-002.5-07-039.12

POSPELOV, V. V., MITAUER, L. Kh., and BEGLYAROVA, N. T., Kharkov Oblast
Tuberculosis Clinic

"Reasons for the Late Detection of Tuberculosis in Kharkovskaya Oblast"

Moscow, Problemy Tuberkuleza, No 12, 1971, pp 6-9

Abstract: Retrospective analysis of the case histories of 202 tuberculosis patients revealed that the main cause of the delay in diagnosing the disease was poor organization of occupational physical examinations: 75 persons (37.1%) employed in schools, restaurants, livestock farms, etc. did not receive the routine annual or semiannual checkups during the year prior to detection of the disease. In 26 cases (12.9%), general practitioners were delayed too long in referring the people for X-rays or consultation with a specialist. The latter was responsible for a wrong diagnosis in 12 cases (6%), while the roentgenologist failed to observe pathological changes on the X-rays in 4 cases (2%). Both factors were responsible in 13 cases (6.4%). Thus, doctors were to blame for late detection of the disease in 64.4% of the cases. An unusual course of the disease was the cause in 63 patients (31.2%), most of whom were suffering from infiltrative-pneumonic tuberculosis in the phase of caseous degeneration. In only 9 cases (4.4%) were the patients

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USSR

POSPELOV, V. V., et al., Problemy Tuberkuleza, No 12, 1971, pp 6-9

themselves to blame because of apparent indifference to their health and failure to see a doctor despite chest pains, high fever, and so forth.

2/2

1/2 028 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--CHARACTERISTIC NOISE MATRIX OF A MULTI TERMINAL NETWORK -U-
AUTHOR--(02)-ONISHCHUK, A.G., BEGMAT, I.M. **B**
COUNTRY OF INFO--USSR
SOURCE--IZV. VUZ RADIOELEKTRONIKA (USSR), VOL. 13, NO. 1, P. 85-7, JAN.
1970
DATE PUBLISHED----JAN70

SUBJECT AREAS--NAVIGATION
TOPIC TAGS--SCATTERING MATRIX, COMMUNICATION NETWORK, SIGNAL INTERFERENCE

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/0269 STEP NO--UR/0452/70/013/001/0085/0087
CIRC ACCESSION NO--AP0137374

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0137374

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CHARACTERISTIC NOISE MATRIX N
SUBS IS DERIVED IN TERMS OF THE SCATTERING MATRIX. A CLASSIFICATION IS
GIVEN SHOWING THE NATURE OF N SUBS VERSUS DIFFERENT TYPES OF NETWORKS
AND THEIR PARAMETERS.

UNCLASSIFIED

USSR

UDC 657.1.011.56

BEGOTSKAYA, G. K., Engineer

"Computing the Motion of Manufactured Parts Under Automated Data Processing Conditions"

Moscow, Mekhanizatsiya i Avtomatizatsiya proizvodstva, No 1, 1973, pp 43-45

Abstract: Results of the production-management activity of an enterprise are characterized by the efficiency with which manufactured products are moved. In the Moscow instrument plant "Kalibr," for example, just the primary information regarding manufactured products consists of about a million requisitions per month, a volume of data which cannot be handled manually. Thus, movement of the manufactured material must be facilitated by machines like the "Zoyemtron-383," a perforated-tape machine which can be used with an electronic computer for bookkeeping operations. A description of such bookkeeping machines is given, together with a specimen of the record blank and a block diagram of the technological process within the machine to produce the record for storage in an electronic computer. Some of the algorithms involved and a discussion of their realization on the computer are also presented.

1/1

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1/2 014 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--PHOTOSYNTHETIC COEFFICIENT AS A FUNCTION OF THE PLANT TISSUE
COMPOSITION -U-
AUTHOR--BEGROV, V.V. B
COUNTRY OF INFO--USSR
SOURCE--ZH. OBSHCH. BIOL. 1970, 31(1), 99-105
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--CHLORELLA, PHOTOSYNTHESIS, PLANT PHYSIOLOGY

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3009/0187 STEP NO--UR/0321/70/031/001/0099/0105
CIRC ACCESSION NO--AP0139050
UNCLASSIFIED